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| EXAMINER |
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KAHELIN, MICHAEL WILLIAM

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3762

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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|------------------------------|--------------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 10/693,008 | Applicant(s) TOY ET AL. | |
| | Examiner Michael Kahelin | Art Unit 3762 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6, 27 and 38-43 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-26, 28-30 and 32-37 is/are rejected.
- 7) ☒ Claim(s) 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>20060830; 20061002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/10/2006 with respect to the 35 USC 103(a) rejections of claims 1, 12, 24, 28, and 32 have been fully considered but they are not persuasive. Applicant argued that Mann et al. (US 5,833,623, hereinafter "Mann") fails to teach the limitation of disabling an entire display, but only disables a display panel; and further deactivates the display panel because no data is available for presentation, not to reduce electrical interference, as claimed. Further, Applicant argued that an artisan of ordinary skill would not be motivated to combine the teachings of Lebel et al. (US 2003/0065308, hereinafter "Lebel") and Mann. The argument that Mann does not disable an entire display is not found moving because the "IEGM/ECG display" of Mann, under its broadest reasonable interpretation as well as plain language, is "a display", as claimed. It is further noted that the claims do not state disabling an "entire" display. As the cited claims are "comprising" claims, there is no limitation placed on whether other displays are present or whether the claimed display is part of a larger display, only that "a display" is disabled. In regards to the argument that Mann deactivates the display panel because no data is available for presentation, not to reduce electrical interference, Mann teaches of a programmer device having finite bandwidth (col. 17, line 43). By disabling the display (i.e. disabling the transfer of IEGM/EGM data), Mann's device reduces electrical interference between the "protocol items" and IEGM/EGM data (i.e. the telemetry data and display rendering data of paragraph 12 of the previous

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Office Action). This disclosure (as well as Lebel's disclosure) provides motivation to combine the strategies of Lebel and Mann to arrive at the claimed invention, namely to minimize extraneous noise thus providing a clean and fast telemetry transmission.

2. Applicant's arguments filed 10/10/2006 with respect to the 35 USC 103(a) rejection of claims 9 and 20 have been fully considered but they are not persuasive. Applicant argued that the "one or more hybrid circuit boards" of Lebel (par. 0191) do not necessarily include two circuit boards, and Lebel is further lacking a teaching of a display mounted on a circuit board separate from the hybrid circuit board. In response to the argument that "one or more hybrid circuit boards" do not necessarily include two circuit boards, more than one hybrid circuit board inherently includes *at least* two circuit boards. Regardless of whether each hybrid board comprises multiple circuit boards is irrelevant because a hybrid board is a circuit board, and Lebel discloses that certain embodiments comprise at least two hybrid boards. Lebel further discloses peripheral (i.e. external to the ASIC) modules (par. 0197), examples of which are the LCD display and driver and front-end telemetry hardware. This disclosure amounts to telemetry and display circuitry on separate circuit boards.

3. Applicant's arguments filed 10/10/2006 with respect to the claim rejections under nonstatutory double patenting have been fully considered but they are not persuasive. Applicant argued that the obviousness-type double patenting rejection of claims 1-3, 8, 12-14, 22-24, 28, and 32-37 is improper because the rejection contains no analysis of whether Applicant's instant claims would have been obvious in view of the copending application (i.e. Graham v. Deere analysis). The term "obviousness" in "obviousness-

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type double patenting” is used in a different sense than “obviousness” as it applies to 35 USC 103, for example. In obviousness-type double patenting, obviousness encompasses both anticipatory and obvious relationships between copending applications (see MPEP 804(II)(B)(1)). Because claims 22 and 32 are more narrow (i.e. contain at least the limitations, or anticipate) than the claims of the instant application, an obviousness-type double patenting rejection is still deemed proper and stands.

Information Disclosure Statement

4. The information disclosure statements (IDS) submitted on 8/3/2006 and 10/2/2006 are noted. The submissions are in compliance with the provisions of 37 CFR 1.97 and 1.98. Accordingly, the information disclosure statements are being considered by the examiner.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The reference to “the antenna” in line 4 is vague because it is unclear as to which antenna “the antenna” refers.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-5, 8, 12-16, 22-26, 28-30, and 32-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lebel et al. (US 2003/0065308, hereinafter "Lebel") in view of Mann et al. (US 5,833,623, hereinafter "Mann"). Lebel discloses the essential features of the claimed invention including the following:

10. In regards to claims 1, 2, 12, 13, 24, 28 and 32, Lebel discloses a programmer device/method having a display and a lighting source wherein the lighting source is disabled during activation of a telemetry circuit to reduce interference (par. 0257). The lighting source inherently has associated circuitry that is also disabled because the "RF quiet signal" must be transmitted/processed by an associated circuitry.

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11. In regards to claims 3 and 14, it is well known in the art that circuit components, including LCD displays, are typically connected to circuit boards by soldering or other means to provide a stable means to connect circuit components. Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to connect the display to a circuit board to provide a stable means to connect circuit components.

12. In regards to claims 4 and 15, the source is enabled (via "RF receive power signal") when telemetry is not activated (par. 0257).

13. In regards to claims 5, 16, 22, 23, 26 and 30, the device is a neurostimulator (par. 0091), with an internal antenna (par. 0216) that transmits signals, and the source is enabled when the telemetry is not activated (par. 0257).

14. In regards to claim 8, the display is an LCD (par. 0067).

15. In regards to claims 25 and 29, the device is handheld and portable (par. 0115).

16. In regards to claims 33-37, it is inherent that substantially an entire circuit board on which the source is mounted is disabled because the source (Fig. 5) comprises substantially the entire LCD circuit board and this component is separate from the other components of the device (par. 0197). Alternatively, it is well known in the art to place system components on individual circuit boards to allow the individual systems to use similar voltage, current, and impedance characteristics while also minimizing housing volume. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lebel's invention by disabling an entire

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circuit board when the source is disabled to disable the high-noise circuit board that is associated with the high-noise display.

17. Although Lebel discloses disabling a source associated with a display to reduce EMI, Lebel does not expressly disclose disabling an LCD display during telemetry.

Mann teaches of disabling a display (col. 17, line 48) to avoid electrical interference (between the telemetry data and display rendering data). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lebel's invention by disabling not only the lighting source, but also a display to avoid electrical interference.

18. Alternatively, claims 1, 2, 4, 12, 13, 15, 22-24, 28 and 32 rejected under 35 U.S.C. 103(a) as being unpatentable over Mann in view of Lebel. Mann discloses the essential features of the claimed invention including the following:

19. In regards to claims 1, 2, 12, 13, 24, 28 and 32, Mann discloses activating telemetry in a programmer for an implantable device and disabling a display during activation (col. 17, line 47), and the display inherently has associated circuitry because it is controlled by a controller.

20. In regards to claims 4 and 15, the display is enabled when the telemetry is not activated (col. 17, line 47).

21. In regards to claims 22 and 23, the device is a neurostimulator (col. 13, line 9).

22. Although Mann does not explicitly disclose providing a display lighting source, it is inherent that the display has a lighting source because some amount of light is required to see images. Therefore, for a component to be a display (i.e. seen by a

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person), it must have some sort of lighting source. Alternatively, Lebel teaches of providing a display lighting source in a programmer to provide ease of viewing in low-light environments. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Mann's invention with a display lighting source to provide ease of viewing in low-light environments.

23. Claims 7, 9, 11, and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lebel in view of Mann (or Mann in view of Lebel), as applied to claims 1 and 12, and further in view of Stanton et al. (US 6,249,703, hereinafter "Stanton"). Lebel's (or Mann's) modified invention disclose the invention substantially as claimed except for providing an internal and external antenna, and placing the communication circuitry on a first circuit board and the display on a second. Stanton teaches of a programmer for an implantable device that comprises an internal antenna and a removable external antenna so that the main body of the programmer can be seen and operated while the antenna is in contact with the body. Therefore, it would have been obvious to someone with ordinary skill in the art at the time of invention to provide Lebel's (or Mann's) invention with an internal and external antenna so that the main body of the programmer can be seen and operated while the antenna is in contact with the body. In regards to claims 9 and 20, Lebel discloses that their invention can consist of several hybrid circuit boards (Lebel, par. 0191) and a number of modules, including the ASIC and LCD display and drivers (Lebel, par. 0197), to fit the particular design constraints. Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to place the telemetry circuit on a first circuit board and

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the display circuitry on another, based on the teaching of Lebel to fit volumetric design constraints.

24. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lebel in view of Mann and Stanton (or Mann in view of Lebel and Stanton) as applied to claim 9 above, and further in view of Stein et al. (US 2004/0230247, hereinafter "Stein").

Lebel's (or Mann's) modified invention teaches of the invention essentially as claimed except for an antenna defining an aperture with a battery bay extending into the aperture. Stein teaches of an antenna (Fig. 9, element 66) with a battery bay (Fig. 9, element 86) in the aperture to increase the inductance of the antenna and efficiently utilize the housing volume. Therefore, it would have been obvious to someone with ordinary skill in art at the time of invention to provide Lebel's (or Mann's) modified invention with an antenna with a battery bay in the aperture to increase the inductance of the antenna and efficiently utilize the housing volume.

Allowable Subject Matter

25. Claims 6, 27, and 38-43 are allowed.

26. Claim 31 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

27. Claim 17 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Double Patenting

28. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

29. Claims 1-3, 8, 12-14, 22-24, 28, and 32-37 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 22 and 32 of copending Application No. 10/693,835. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending application's claims are more narrow and meet the limitations of the broader claims of this application.

30. Claims 4, 5, 15, 16, 25, 26, 29, and 30 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 22 of copending Application No. 10/693,835, hereinafter "'835" in view of Lebel. Application '835 claims the essential features of the instant application's invention except for

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enabling the display after telemetry and providing a handheld, portable device. Lebel teaches of enabling the display after telemetry to provide diagnostic and programming information when EMI resistance is no longer critical and providing a handheld and portable device to allow the implant to be programmed in environments other than a physician's office. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify '835 by enabling the display after telemetry to provide diagnostic and programming information when EMI resistance is no longer critical and providing a handheld and portable device to allow the implant to be programmed in environments other than a physician's office.

31. Claims 7, 9-11 and 18-21 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 26 of copending Application No. 10/693,835 in view of Stanton. Application '893 claims the essential features of the instant application's invention except for a second external antenna. Stanton teaches of providing a second external antenna to allow the antenna to maintain close proximity to the implant site, while still allowing the programmer to be viewed. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide '893 with a second external antenna to allow the antenna to maintain close proximity to the implant site, while still allowing the programmer to be viewed.

These are provisional obviousness-type double patenting rejections because the conflicting claims have not in fact been patented.

Conclusion

32. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Kahelin whose telephone number is (571) 272-8688. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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GEORGE R. EVANISKO
PRIMARY EXAMINER

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